Concepts of Severe Weather/Storm Spotting

Milwaukee/Sullivan web site address: www.crh.noaa.gov/mkx or www.weather.gov/milwaukee
Rusty's email address: rusty.kapela@noaa.gov
Information about Storm Spotting can be found on the SkyWarn Page on the Milwaukee/Sullivan web site – link is in blue column to the left of the southern Wisconsin base map.
Wisconsin Emergency Management homepage: www.emergencymanagement.wi.gov

Register in e-Spotter, an online program found on SkyWarn Page, register after attending a spotter class.
Basic and advanced storm spotter slide sets (Part I and II) can be found on Storm Spotter's Page.
Wisconsin severe weather graphics and bean counts: www.crh.noaa.gov/mkx/climate-severe.php
National severe weather hazard statistics: www.nws.noaa.gov/om/hazstats.shtml
Preparedness and Safety Tips: http://www.crh.noaa.gov/mkx/edu.php

Storm Prediction Center's web site address: www.spc.noaa.gov
All about tornadoes: www.spc.noaa.gov/faq/tornado
All about derechos: www.spc.noaa.gov/misc/AbtDerechos/derechofacts.htm
All about the new enhanced Fujita Scale: http://www.spc.noaa.gov/efscale/

University of Wisconsin - Madison satellite study page: http://cimss.ssec.wisc.edu/
University of Wisconsin – Milwaukee model page: http://sanders.math.uwm.edu/~realtime/rt_home.html

Glossary for storm spotters: www.srh.noaa.gov/oun/severewx/glossary.php
Sullivan Committee (oversees ham activities and receipt of ham reports at MKX) - http://www.sulcom.info
MidWest Severe Storm Tracking/Response Center – http://www.midwestsstrc.org
Milwaukee Area Skywarn Association - http://www.mke-skywarn.org/

Brochures and publications (including spotter guides) can be found at these addresses:
www.nws.noaa.gov/om/brochures.shtml
www.2010.atmos.uiuc.edu/(Gh)/guides/mtr/svr/xtml (Some advanced ideas)
www.cimms.ou.edu/~doswell/microbursts/Handout.html (Microburst Info)

Using a search engine…type in the following "key" words to find additional web sites (You Tube for videos):
Skywarn tornado thunderstorm downburst tornadoproject storm chaser vortex derecho severe weather Enhanced Fujita scale rotating wall cloud shelf cloud rear flank downdraft

Link to other NWS sites: www.weather.gov/organization.php You are encouraged to surf other NWS office web sites and check out their storm spotter pages, or something on that order…you'll find some interesting things.

Citizen's Weather Observing Program: www.wxga.com
http://216.39.128.10/~aprswest/javAPRS/wx.html
Educational Outreach: www.nws.noaa.gov/om/

Engineering and Design Considerations for Strengthening Structure: www.wind.ttu.edu

Historical & Past weather information:
National Climatic Data Center – Ashville, NC – www.ncdc.noaa.gov
Midwestern Climatic Center – http://mcc.swsuiuc.edu
Wisconsin State Climatology Office: www.aos.wisc.edu/~sco
Wisconsin Storm Write-ups: http://www.crh.noaa.gov/mkx/?n=documented_storms

Lightning Safety Tips - http://www.lightningsafety.noaa.gov/outdoors.htm
http://lightningsafety.noaa.gov http://www.mos.org/sln/toe/cage.html
http://www.struckbylightning.org/news/dispIncidentdb.cfm

CoCoRaHS – www.cocorahs.org

Spotter Do's and Don'ts

Do...attend spotter classes as much as possible.
Do...surf the web for additional information on spotting, severe weather, etc. (including Storm Prediction Center)
Do...have a watch, pencil, note pad, cell phone, and colored Spotter Quick Reference Guide with you when spotting
Do...make an effort to provide an accurate report - the time, location, condition (what you experienced/saw), and location
Do...reference your severe weather report location to the cultural/political center of the nearest city/village, to the nearest 1/10 mile and one of the 16 compass points (stationary spotters)...such as...1.5 NNE Madison
Do...provide in your report what direction you are looking at while viewing a rotating wall cloud, funnel cloud, or tornado, since you can't accurately determine, in the heat of the battle, how far away the wall cloud/funnel cloud/tornado is from your position
Do...spot with a partner, especially if you are mobile - two heads are better than one in this business!
Do...place the safety of you and your family first, your report is second priority
Do...take a deep breath, try to remain calm, and get the job done
Do...utilize communication channels that have been set up for you or your group, and follow proper format/procedures
Do...make sure the National Weather Service receives your report via 911, or our 800 number, or ham frequencies, or E-Spotter
Do…identify yourself as a "trained severe weather spotter" if you call 911 – they will then trust your report and not have to dispatch a squad car to your location to verify what you see (waste of time)
Do...be willing to freely share some of your severe weather pictures with the NWS for educational purposes, on-line stories (it's in the public domain when on our web site)
Do..feel good about what you're doing as a spotter - you are just as important as any other spotter!

Don't...assume you know everything there is to know about spotting - keep an open mind - you'll learn something new every year
Don't...make it difficult for emergency response people (emergency management, law enforcement, fire fighters, Red Cross, etc.) to do their job - don't get in the way unless you are specifically asked to help
Don't...just take pictures and video of a wall cloud or tornado and forget to relay your spotter report
Don't...look at spotting as a game or procedure that will make you look more important to your peers - keep a level head and just do your best
Don't...look down at or ridicule another spotter for making a mistake - you may make the next mistake - we all have - no one is perfect
Don't...get upset at the National Weather Service if you don't see your severe weather report appear on-line as a Local Storm Report (LSR) or in a Public Information Statement (PNS), or in some "Top News of the Day" article on the NWS's web page - we get hundreds of reports from the 20 counties we service.
Don't...assume that you have a tornado just because you see something that looks like a funnel cloud - you must see some indication of ground-based, rotational effects (rotating debris/dirt) underneath or very close to the funnel cloud in order to classify it as a tornado - and there may be very little of any funnel cloud. If the cloud feature you're looking at isn't rotating itself, it's not a tornado or funnel cloud, no matter how scary it looks.
Don't...get caught up in the game of trying to be the first person to call-in a tornado report - spotting is a game of being 100% correct...it's not a game of being the first.
Don't...call-in or relay a report if you're not sure what you're looking at - you must be 100% sure of what you're looking at - accuracy is the highest priority, after your safety - We'd rather have no report rather than a false report.
Don't...forget to give yourself a pat on the back - for your volunteer, public safety efforts!

When reporting tornadoes or funnel clouds or rotating wall clouds –

Is it in the correct place in the storm? Best view? Is it rotating? Do you see rotational dirt/debris effects/spray at the ground level with cloud-base rotation directly above the ground effects? – it's probably a tornado. Provide frequent updates.
In which direction are you looking toward when viewing the tornado or funnel cloud or rotating wall cloud? Is it off in the distance or is it close? Don't try to estimate the distance between you and the tornado/funnel cloud/rotating wall cloud – we don't need it.

When reporting hail –

Use only "small marble" to describe small hail that's about ½ inch in diameter. Do not use the phrase "large marble-size hail, because marbles come in different sizes. If you cannot measure the hail, use coins or other known objects to describe the size.
Report size of largest hailstone, using the largest diameter of an odd-shaped hailstone.

When reporting powerful thunderstorm winds –

Did you measure or estimate the wind gust? Did the wind produce damage? If damage occurred, describe.
What was damaged, character, extent.

When measuring snow depths –

Use the toll-free number or *eSpotter* to contact the NWS during a storm and afterwards with your storm total.
Measure in at least five locations and find the average. Avoid measuring snow next to buildings. Record the snowfall to the nearest tenth of an inch. Measure snow only once per 6-hour (minimally) period. Do not measure every hour and then add up hourly measurements – measure only once per 6-hour period, minimally. You can measure snow once every 6, 7, 8, 9, 10, 11, 12…..24 hours, but not every hour or every 2, 3, 4, or 5 hours. The National Weather Service reports new snowfall amounts once every 6 hours at its major reporting sites.